

WHAT IS CLAIMED IS:

1. A variable resistor, comprising:

a case;

a rotor rotatably mounted in said case, said rotor being arranged to be rotationally operated from outside of the case;

a substrate provided in said case, said substrate having a collector electrode at an approximately central portion of the surface thereof, and having an arcuate resistor disposed outside said collector electrode so as to be substantially concentric therewith;

a slider mounted on said rotor so as to be rotatable together with said rotor, said slider having an annular arm portion arranged to make sliding contact with said arcuate resistor of said substrate, and having a substantially I-shaped arm portion arranged to make contact with said collector electrode; and

portion having a folded back structure and being coupled at one end thereof with said annular arm portion and said substantially I-shaped arm portion by said folded-back structure, said base portion extending up to a position corresponding to a tip portion of said annular arm portion and a rear surface of said base portion being supported by

said rotor; wherein

said annular arm portion is bent up at a portion thereof;

said substantially I-shaped arm portion extends in a direction that is substantially perpendicular to the bent-up portion of said annular arm portion, and is located inside of said annular arm portion.

2. A variable resistor according to claim 1, wherein said annular arm portion, said substantially I-shaped arm portion, and said base portion are coupled to each other such that said base portion is folded-back, and said annular arm portion, said substantially I-shaped arm portion, and said base portion are disposed in close contact with each other.

3. A variable resistor according to claim 1, wherein said substantially I-shaped arm portion is raised without raised by a portion of the folded-back portion located between said annular arm portion and said base portion in a direction opposite to the bending-up direction of said annular arm portion.

4. A variable resistor according to claim 3, wherein

an inclined surface <sup>is</sup> provided on a bottom surface of the rotor corresponding to the folded-back portion of the slider in the direction opposite to the bending-up direction of the annular arm portion.

5. A variable resistor according to claim 1, wherein the case has a lower-end opening portion and the substrate is fixed to the lower-end opening portion of the case.

6. A variable resistor according to claim 1, further comprising protrusions provided on the bottom surface of the rotor and arranged to prevent slipping rotation of the slider with respect to the rotor.

~~7. A~~ variable resistor according to claim 1, wherein the substrate includes through holes and lead terminals extend through the through holes in the substrate.

sliding contact member for making sliding contact with the arcuate resistor of the substrate is arranged to protrude from the tip portion of the annular arm portion.

9. A variable resistor according to claim 1, wherein a contact member arranged to contact the collector electrode

is arranged to protrude from the tip of the substantially I-shaped arm portion.

10. A variable resistor according to claim 1, wherein the base portion has a disk configuration having substantially the same diameter as the annular arm portion.

11. A variable resistor according to claim 1, wherein the rotor includes protrusions, and a pair of through holes for fitting to the protrusions of the rotor are provided on the surfaces of the annular arm portion and the base portion.

12. A variable resistor according to claim 1, wherein an effective spring length of the annular arm portion and an effective spring length of the substantially I-shaped arm portion of the slider are substantially the same.

13. A variable resistor according to claim 1, wherein substantially I-shaped arm portion are substantially equal.

14. A hearing aid comprising:  
a variable resistor including:

a case;

a rotor rotatably mounted in said case, said

rotor being arranged to be rotationally operated from outside of the case;

a substrate provided in said case, said substrate having a collector electrode at an approximately central portion of the surface thereof, and having an arcuate resistor disposed outside said collector electrode so as to be substantially concentric therewith;

a slider mounted on said rotor so as to be rotatable together with said rotor, said slider having an annular arm portion arranged to make sliding contact with said arcuate resistor of said substrate, and having a substantially I-shaped arm portion arranged to make contact with said collector electrode; and

a base portion integral with said slider, said base portion having a folded back structure and being coupled at ~~one~~ end thereof with said annular arm portion and said substantially I-shaped arm portion by said folded-back structure, said base portion extending up to a position

and a rear surface of said base portion being supported by said rotor; wherein

said annular arm portion is bent up at a portion thereof;

said substantially I-shaped arm portion extends in a direction that is substantially perpendicular to the

bent-up portion of said annular arm portion, and is located inside of said annular arm portion.

15. A hearing aid according to claim 14, wherein said annular arm portion, said substantially I-shaped arm portion, and said base portion are coupled to each other such that said base portion is folded-back, and said annular arm portion, said substantially I-shaped arm portion, and said base portion are disposed in close contact with each other.

16. A hearing aid according to claim 14, wherein said substantially I-shaped arm portion is raised without folding said substantially I-shaped arm portion and is raised by a portion of the folded-back portion located between said annular arm portion and said base portion in a direction opposite to the bending-up direction of said annular arm portion.

inclined surface is provided on a bottom surface of the rotor corresponding to the folded-back portion of the slider in the direction opposite to the bending-up direction of the annular arm portion.

18. A hearing aid according to claim 14, wherein the

case has a lower-end opening portion and the substrate is fixed to the lower-end opening portion of the case.

19. A hearing aid according to claim 14, further comprising protrusions provided on the bottom surface of the rotor and arranged to prevent slipping rotation of the slider with respect to the rotor.

20. A hearing aid according to claim 14, wherein the substrate includes through holes and lead terminals extend through the through holes in the substrate.

21. A hearing aid according to claim 14, wherein a sliding contact member for making sliding contact with the arcuate resistor of the substrate is arranged to protrude from the tip portion of the annular arm portion.

22. A hearing aid according to claim 14, wherein a is arranged to protrude from the tip of the substantially I-shaped arm portion.

23. A hearing aid according to claim 14, wherein the base portion has a disk configuration having substantially the same diameter as the annular arm portion.

24. A hearing aid according to claim 14, wherein the rotor includes protrusions, and a pair of through holes for fitting to the protrusions of the rotor are provided on the surfaces of the annular arm portion and the base portion.

25. A hearing aid according to claim 14, wherein an effective spring length of the annular arm portion and an effective spring length of the substantially I-shaped arm portion of the slider are substantially the same.

26. A hearing aid according to claim 14, wherein a spring elasticity of the annular arm portion and the substantially I-shaped arm portion are substantially equal.